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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,918

Applicant(s)

HONKURA ET AL.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/03 7/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1 to 13, in the reply filed on July 6, 2006 is acknowledged. The traversal is on the ground(s) that the Examiner has not cited any articles or scientific evidence to show that the alternate process can in fact be used to make applicants' bonded magnet and that a search of all of the claims would not impose a serious burden on the Office. This is not found persuasive because the Examiner's statement that a different process can be used to make the claimed product and/or that the claimed process can be used to make a product different than the claimed product do not need to be documented, MPEP 806.05(f). Applicants' traversal on the ground that the examination of all of the claims would not impose a serious burden on the Office is not found persuasive because, in addition to the further searching referred to in the statement of the Restriction Requirement, the examination of both the product and the process claims in a single application would require additional analysis of the prior art, formulation of rejections, evaluation of applicants' arguments and consideration issues of patentability.

The requirement is still deemed proper and is therefore made FINAL.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings were received on September 14, 2004. These drawings are acceptable.

Specification

4. The disclosure is objected to because of the following informalities:
 - I. In Chart 3B on page 89 of the specification, the entries under the column heading "Point of Comparison" appear to be inconsistent with the data in Chart 3A on page 88 of the specification.
 - i. For Sample No. C1, the Point of Comparison in Chart 3B states, "No surfactant treatment of SmFeN fine magnet powder". However, this is not consistent with Chart 3A wherein it is indicated that in Sample C1 the SmFeN powder has been treated with a surfactant.
 - ii. For Sample No. C2, the Point of Comparison in Chart 3B states, "No surfactant treatment of NdFeB coarse magnet powder". However, this is not consistent with Chart 3A wherein it is

indicated that in Sample C2 the NdFeB powder has been treated with a surfactant.

iii. For Sample No. C3, the Point of Comparison in Chart 3B states, "No surfactant treatment of either magnet powder". However, this is not consistent with Chart 3A wherein it is indicated that in Sample C3 the NdFeB powder has been treated with a surfactant.

iv. For Sample No. D1, the Point of Comparison in Chart 3B states, "Below lower limit of NdFeB coarse magnet powder average grain diameter". However, this is not consistent with Chart 3A wherein it is indicated that in Sample D1 the average grain size of the NdFeB powder is 45 microns which is within the claimed range of 40 to 200 microns.

II. In Charts 1B and 2B it is not clear what the symbol "o" means (see last column of each Chart).

III. In Chart 3B it is not clear what the symbols "o" and "x" mean (see second column from the right of Chart 3B).

Appropriate correction is required.

Claim Objections

5. Claims 7 and 10 are objected to because of the following informalities:

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I. In claim 7, line 17, it is questioned whether "240 kJ/m³" should read 240 kJ/m³.

II. In claim 7, line 7, "R1" lacks a definition.

III. In claim 7, line 17, R2 lacks a definition.

IV. In line 10, the last line, R3 lacks a definition.

Appropriate correction is required.

Use Claim 13

6. Claim 13 provides for the use of the rare earth anisotropic bonded magnet compound, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. In claim 7, line 10, "said #1 surfactant" lacks a clear antecedent.

II. In claim 7, in the last 3 lines, the meaning of the phrase, "enveloping the grains a ferromagnetic buffer which said R2 fine magnet powder uniformly disperses in said resin" is not clear. For example, what does "enveloping the grains a ferromagnetic buffer," mean?

Claim Interpretation

Throughout the claims applicants use the term "d-HDDR" to describe the first powder (for example see claim 1, lines 3 and 5; and claim 7, line 3). Applicants are advised that the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder. Thus, although applicants' claims do not recite all of the process steps used to prepare the claimed product, applicants' claims are considered to be product by process claims. However, the recited process step is not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re*

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Thorpe, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

It is noted that the courts have approved the use of a rejection under 35 USC 102/103 for product by process claims, see MPEP 2113.

"[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531,535,173 USPQ 685,688 (CCPA 1972).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 to 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanekiyo et al. (Kanekiyo, US Patent No. 6,814,776) taken in view of Kaneko et al. (Kaneko Japanese Patent No. 2000-003809).

Kanekiyo teaches an iron based rare earth alloy powder that is a mixture of 2 iron base rare earth powders having particle size and aspect ratios that overlap the particle size and aspect ratios recited in the instant claims (column 4, lines 29 to 39).

Kanekiyo's powder composition encompasses the powder composition recited in the instant claims (column 3, lines 46 to 58). Kanekiyo teaches that the powder mixture is used to make resin bonded magnets (column 5, lines 42 to 48 and column 23, line 65 to column 24, line 3).

Kaneko teaches that adding a surfactant to iron based rare earth alloy powder prevents oxidation degradation during kneading and shaping the powder resin mixture (see paragraph 0018 of the machine translation of Kaneko).

The claims and Kanekiyo differ in that Kanekiyo is silent with respect to the use of a surfactant and "d-HDDR" formed powder.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because one of ordinary skill in the art would have been motivated to apply a surfactant to Kanekiyo's iron based rare earth magnet powder so as to reduce oxidation degradation during kneading and shaping the iron based rare earth powder as is taught by Kaneko.

Regarding the "d-HDDR" it is the Examiner's position that as set forth above under the heading, "Claim Interpretation", the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder and that this recited process does not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

11. Claims 1 to 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou et al. (Satou, Japanese Patent Document No. 06-132107, cited in the IDS submitted November 18, 2003) taken in view of the combination of Kaneko et al. (Kaneko Japanese Patent No. 2000-003809) and Kanekiyo et al. (Kanekiyo '546, US Patent Application Publication 2003/0019546).

Satou teaches an anisotropic bonded magnet comprising a mixture of rare earth magnet powders having a particle size that overlaps the particle sizes recited in the instant claims (Abstract).

Kanekiyo '546 teaches a rare earth magnet powder having an aspect ratio of less than 1 and that such an aspect ratio improves the moldability and flowability of the rare earth magnet powder (page 17, paragraph 0236).

Kaneko teaches that adding a surfactant to iron based rare earth alloy powder prevents oxidation degradation during kneading and shaping the powder resin mixture (see paragraph 0018 of the machine translation of Kaneko).

The claims and Satou differ in that Satou is silent with respect to the use of a surfactant, "d-HDDR" formed powder and the aspect ratio of the rare earth magnet powder .

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because one of ordinary skill in the art would have been motivated to apply a surfactant to Satou's iron based rare earth magnet powder so as to reduce oxidation degradation during kneading and shaping the iron based rare earth powder as is taught by Kaneko.

Regarding the "d-HDDR" it is the Examiner's position that as set forth above under the heading, "Claim Interpretation", the Examiner considers that this term merely describes how the powder was prepared, that is, the process used to prepare the recited powder and that this recited process does not necessarily considered to lend patentability to the claimed product, MPEP 2113.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir.1985).

Finally, with respect to the aspect aspect ratio of the rare earth magnet powder it is the Examiner's position that one of ordinary skill in the art would be motivated to employ an aspect ratio of less than 1 so as improve the moldability and flowability of the rare earth magnet powder as taught by Kanekiyo '546 (page 17, paragraph 0236).

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1 to 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 to 15 of copending Application No. 10/509,687. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter of these two sets of claims overlaps.

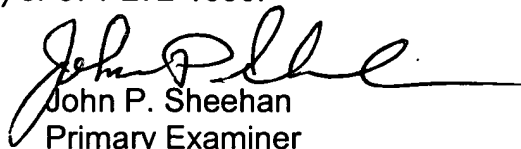
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John P. Sheehan
Primary Examiner
Art Unit 1742

jps